

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
6 October 2005 (06.10.2005)

PCT

(10) International Publication Number
WO 2005/092699 A1

(51) International Patent Classification⁷: **B63B 3/00**

(21) International Application Number:
PCT/US2005/009464

(22) International Filing Date: 22 March 2005 (22.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10/806,904 23 March 2004 (23.03.2004) US

(71) Applicant (for all designated States except US): **MARI-TRANS, INC.** [US/US]; 302 Knights Run Avenue-Suite 1200, Two Harbour Place, Tampa, FL 33602 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **HAGNER, Thomas, B.** [US/US]; 8809 Stillwaters Landing Drive, Riverview, FL 33569 (US).

(74) Agents: **ROCCI, Steven, J.** et al.; Woodcock Washburn LLP, One Liberty Place, 46th Floor, Philadelphia, PA 19103 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

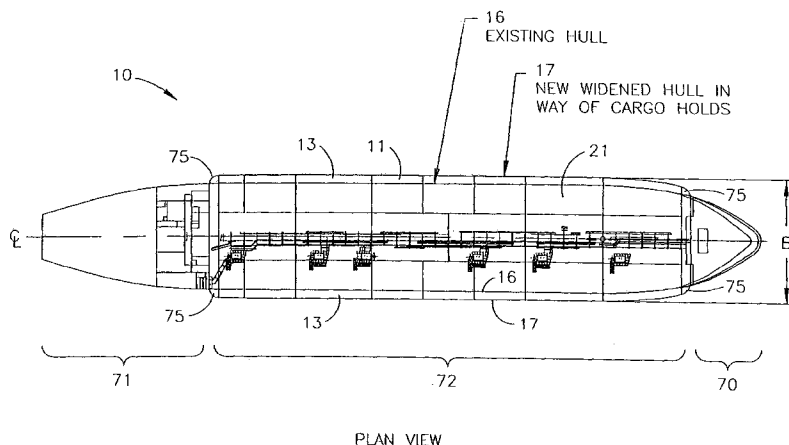
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: REBUILT DOUBLE HULL TANKER AND METHOD OF REBUILDING AN EXISTING SINGLE HULL TANKER INTO A REBUILT DOUBLE HULL TANKER



(57) **Abstract:** The present invention relates to a rebuilt double hull tanker and a method of rebuilding an existing single hull tanker into a rebuilt double hull tanker. The rebuilt double hull tanker includes an internally rebuilt double bottom hull comprising the existing outer bottom hull and a new inner bottom hull that is disposed internal and spaced apart from the existing outer bottom hull and externally rebuilt double side hulls (e.g., port and starboard) comprising the existing inner side hulls and new outer side hulls disposed external and spaced apart from the existing inner side hull. The method includes forming the new double hull, including a new double bottom hull and new double side hulls, over at least the cargo carrying portion of the tanker by installing at least a portion of the new inner bottom hull internally over the existing outer bottom hull through cut-outs in the topside decking. The method also includes the use of model basin testing and computational fluid dynamics to assist in the hull design in the area of the transition regions between the new outer side hull and the existing side hull.

WO 2005/092699 A1